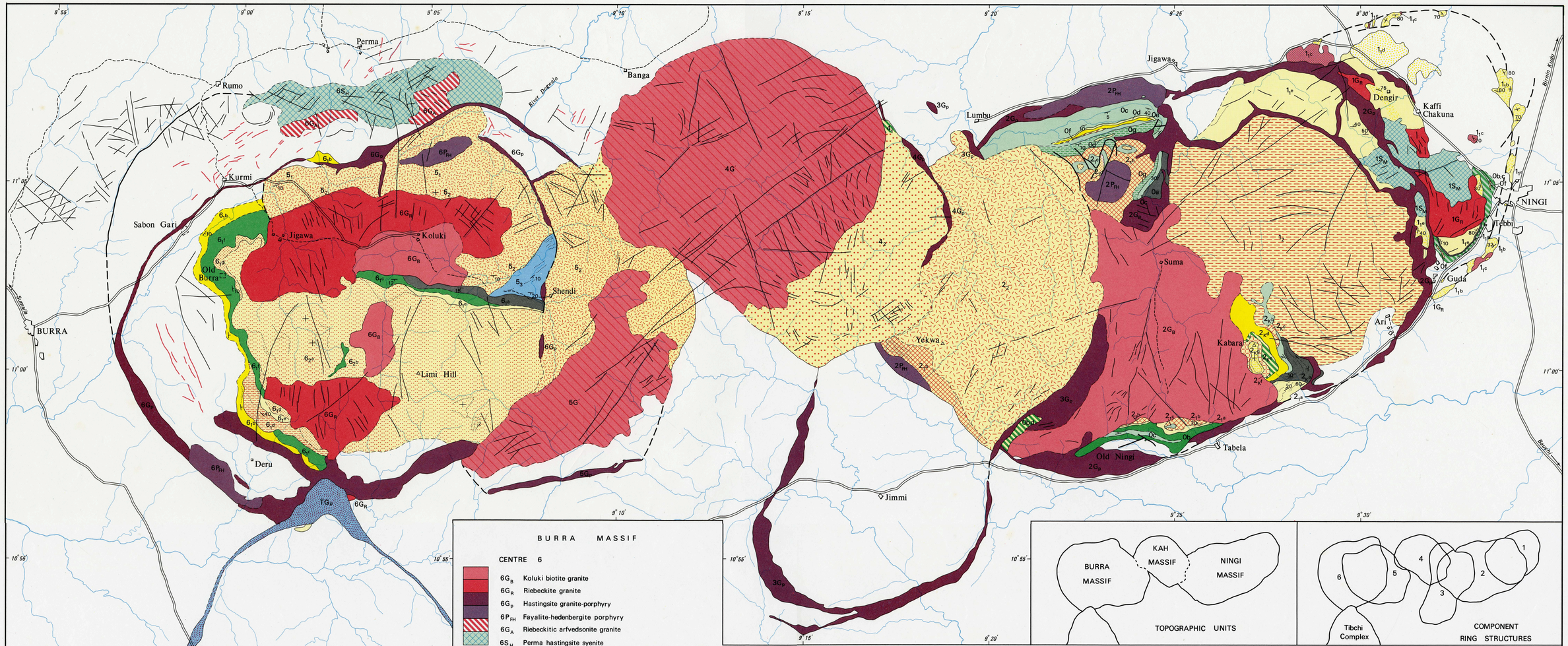
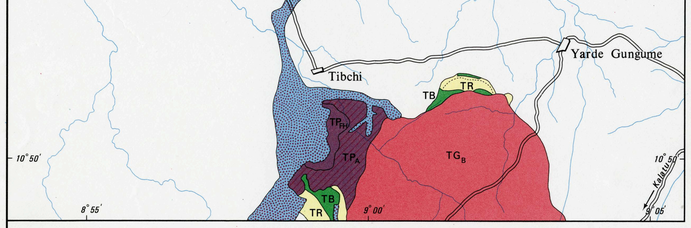
GEOLOGY OF THE NINGI - BURRA RING COMPLEX, NIGERIA

SCALE 1:100,000





BURRA MASSIF

CENTRE 6

- $6G_B$ Koluki biotite granite
- $6G_R$ Riebeckite granite
- $6G_p$ Hastingsite granite-porphyry
- $6P_{FH}$ Fayalite-hedenbergite porphyry
- $6G_A$ Riebeckitic arfvedsonite granite
- $6S_H$ Perma hastingsite syenite
- 6_{2b} Basalt
- 6_{2a} Intra-caldera rhyolites (crystal-rich peralkaline ignimbrites)
- 6_{1g} Peralkaline ignimbrite
- 6_{1f} Basalts
- 6_{1e} Flow banded rhyolites
- 6_{1d} Crystal-rich ignimbrites
- 6_{1c} Basalts
- 6_{1b} Lower rhyolites (mainly medium-crystal ignimbrites)
- 6_{1a} Layered tuffs

CENTRE 5

- $5G_p$ Hedenbergite-hastingsite granite-porphyry
- $5G'$ Granophyre
- 5_3 Caldera lake sediments (sandstone and siltstone)
- 5_2 Intra-caldera rhyolites (crystal-rich ignimbrites)
- 5_1 Pre-caldera rhyolites (varied ignimbrites)

KAH MASSIF

CENTRE 4

- $4G_p$ Hedenbergite-hastingsite granite-porphyry
- $4G'$ Granophyre
- 4_2 Intra-caldera rhyolites
- 4_1 Basalts and rhyolites

CENTRE 3

- $3G_p$ Hedenbergite-hastingsite granite-porphyry (Jimmi ring dyke)

Phenocryst content of rhyolites

- 0 - 10% (crystal-poor)
- 10 - 25% (medium-crystal)
- over 25% (crystal-rich)

Ningi-Burra complex geologically mapped by D.C. Turner 1972-76. Additional information supplied by J.N. Bennett, P. Bowden, E.C. Ike, Dahiru Mohommed and E.A. Okosun. Tibchi complex geologically mapped by E.C. Ike, 1975-76.

NINGI MASSIF

CENTRE 2

- $2G_B$ Tabela-Suma biotite granite
- $2G_p$ Hedenbergite-hastingsite granite-porphyry
- $2P_{FH}$ Fayalite-hedenbergite porphyry
- 2_2 Intra-caldera rhyolites (mainly crystal-rich ignimbrites)

Kabara succession:

- 2_{Kg} Upper Kabara ignimbrites
- 2_{Kf} Lower Kabara ignimbrites
- 2_{Ke} Basalts / rhyolites
- 2_{Kd} Rhyolite lava
- 2_{Kc} Crystal-rich ignimbrite
- 2_{Kb} Quartz trachyte
- 2_{Ka} Layered agglomerates & tuffs

- 2_{1d} Peralkaline ignimbrite
- 2_{1c} Aphyric quartz trachyte
- 2_{1b} Crystal-rich ignimbrites
- 2_{1a} Crystal-poor ignimbrites

CENTRE 1

- $1G_R$ Ningi riebeckite granite
- $1S_M$ Ningi Syeno-monzonite
- 1_2 Intra-caldera rhyolites (mainly crystal-rich ignimbrites)
- 1_{1e} Rhyolite lavas and ignimbrites
- 1_{1d} Aphyric vent rhyolites and breccias
- 1_{1c} Hedenbergite-hastingsite microgranite
- 1_{1b} Eutaxitic rhyolite
- 1_{1a} Layered tuffs

BASAL SERIES

- 0g Porphyritic trachytes and trachyandesites
- 0f, 0e, 0d Rhyolite (ignimbrites)
- 0c Aphyric trachytes
- 0b Basalts, trachybasalts
- 0a Layered tuffs

TIBCHI COMPLEX

- TG_B Biotite granite
- TG_p Granite-porphyry
- TP_A Arfvedsonite porphyry
- TP_{FH} Fayalite-hedenbergite porphyry
- TR Rhyolites
- TB Basalts

- 'Felsite' dykes (granophyre, rhyolite, porphyry)
- Geological boundaries
- Boundaries of minor units
- Faults
- Major joints
- Dip of bedding, banding
- Vertical bedding, banding
- Horizontal bedding, banding

0 10 20 Kilometres